Arpit Bansal

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SKILLS

- **Languages & Frameworks**: Java, Spring Boot, Helidon MP, JavaScript, Python, C++
- **Devops & Observability**: Docker, Kubernetes, Helm, Prometheus, Open Telemetry (Distributed Tracing)
- **Cloud Platforms & Tools:** Redis, MongoDB, Oracle DB, Chroma DB, RabbitMQ, Kafka
- **Backend**: Microservices Architecture, System Design, API Gateway, RESTful APIs, Scalable Systems
- **Others:** Data Structures & Algorithm, Git.

WORK EXPERIENCE

Application Developer: ORACLE 06/2023 – Present

- Reduced data-retrieval l**atency by 88% (40s to 5s)** by implementing a **scheduled cache warmup** and refactoring Java object construction to minimize heap usage and response payload size.
- Developed a shared Helidon logging library that standardized MDC (Mapped Diagnostic Context) across all microservices, enabling **consistent request tracing** in OCI Logging and reducing manual log correlation.
- Improved service reliability by implementing a **Leaky bucket** error-tracking logic that automatically triggered **Kubernetes self-healing** during upstream failures. Eliminated manual pod restarts and prevented unnoticed provisioning failures, maintaining a **99.8**% **success rate** for the API engine.
- Developed **Helm charts** to standardize deployments across environments; implemented custom **Liveness and Readiness probes** and resource limits to ensure automated service recovery and cluster stability.
- Led the **zero-downtime migration** of **5+** core services from legacy to Spectra tenancies; resolved cross-tenant OAuth2 flows and networking hurdles using a **blue-green deployment strategy**.
- Cut incident diagnosis time from 20 minutes to **under 60 seconds** by implementing **distributed tracing** with **OpenTelemetry** and **custom Prometheus metrics** for workflow step failures.

Project Intern: ORACLE 06/2022 – 08/2022

- Developed a full-stack, high-throughput streaming application, backend built on **Helidon MP** with **Kafka** for real-time ingestion and aggregation (capable of processing **10,000+ events per minute**), and a dynamic JavaScript/DOM-driven frontend for visualization.
- Created data pipelines to aggregate data into meaningful statistics and integrated interactive charts and dashboards on the UI to monitor workflow stats.

PROJECTS

AI-Powered Document Q&A System: [https://github.com/arpitkb/docu-mind-backend] 2024 - 2025

- Designed and developed a secure, **multi-service backend**, with Oracle DB to store users and metadata, that allows users to upload files and ask natural language questions about their content.
- Engineered an async processing pipeline using **RabbitMQ** which sends documents to the **Google Gemini multimodal API** for intelligent analysis, converting unstructured files into structured data.
- Built a Q&A engine using a **Retrieval-Augmented Generation (RAG)** pattern. It generates vector embeddings via the Gemini and stores them in Chroma DB to enable user-specific **semantic searching.**

EDUCATION

National Institute of Technology, Warangal 2019 – 2023

B.Tech. Chemical Engineering